



IFWO

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/766,735

DATE: 08/26/2004

TIME: 12:13:55

Input Set : A:\14184-039001.txt

Output Set: N:\CRF4\08262004\J766735.raw

4 <110> APPLICANT: Currie, Mark G.
 5 Mahajan-Miklos, Shalina
 8 <120> TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR THE
 9 TREATMENT OF GASTROINTESTINAL DISORDERS
 12 <130> FILE REFERENCE: 14184-039001
 14 <140> CURRENT APPLICATION NUMBER: US 10/766,735
 15 <141> CURRENT FILING DATE: 2004-01-28
 17 <150> PRIOR APPLICATION NUMBER: US 60/443,098
 18 <151> PRIOR FILING DATE: 2003-01-28
 20 <150> PRIOR APPLICATION NUMBER: US 60/471,288
 21 <151> PRIOR FILING DATE: 2003-05-15
 23 <150> PRIOR APPLICATION NUMBER: US 60/519,460
 24 <151> PRIOR FILING DATE: 2003-11-12
 26 <160> NUMBER OF SEQ ID NOS: 124
 28 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 30 <210> SEQ ID NO: 1
 31 <211> LENGTH: 19
 32 <212> TYPE: PRT
 33 <213> ORGANISM: Escherichia coli
 35 <400> SEQUENCE: 1
 36 Asn Ser Ser Asn Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Thr
 37 1 5 10 15
 38 Gly Cys Tyr
 41 <210> SEQ ID NO: 2
 42 <211> LENGTH: 18
 43 <212> TYPE: PRT
 44 <213> ORGANISM: Escherichia coli
 46 <400> SEQUENCE: 2
 47 Asn Thr Phe Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala Gly
 48 1 5 10 15
 49 Cys Tyr
 52 <210> SEQ ID NO: 3
 53 <211> LENGTH: 18
 54 <212> TYPE: PRT
 55 <213> ORGANISM: Escherichia coli
 57 <400> SEQUENCE: 3
 58 Asn Thr Phe Tyr Cys Cys Glu Leu Cys Cys Tyr Pro Ala Cys Ala Gly
 59 1 5 10 15
 60 Cys Asn
 63 <210> SEQ ID NO: 4
 64 <211> LENGTH: 18
 65 <212> TYPE: PRT
 66 <213> ORGANISM: Citrobacter freundii

(ps.6)
ENTERED

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68 <400> SEQUENCE: 4

69 Asn Thr Phe Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala Gly

70 1 5 10 15

71 Cys Tyr

74 <210> SEQ ID NO: 5

75 <211> LENGTH: 30

76 <212> TYPE: PRT

77 <213> ORGANISM: Yersinia enterocolitica

79 <400> SEQUENCE: 5

80 Gln Ala Cys Asp Pro Pro Ser Pro Pro Ala Glu Val Ser Ser Asp Trp

81 1 5 10 15

82 Asp Cys Cys Asp Val Cys Cys Asn Pro Ala Cys Ala Gly Cys

83 20 25 30

85 <210> SEQ ID NO: 6

86 <211> LENGTH: 30

87 <212> TYPE: PRT

88 <213> ORGANISM: Yersinia enterocolitica

90 <400> SEQUENCE: 6

91 Lys Ala Cys Asp Thr Gln Thr Pro Ser Pro Ser Glu Glu Asn Asp Asp

92 1 5 10 15

93 Trp Cys Cys Glu Val Cys Cys Asn Pro Ala Cys Ala Gly Cys

94 20 25 30

96 <210> SEQ ID NO: 7

97 <211> LENGTH: 53

98 <212> TYPE: PRT

99 <213> ORGANISM: Yersinia enterocolitica

101 <400> SEQUENCE: 7

102 Gln Glu Thr Ala Ser Gly Gln Val Gly Asp Val Ser Ser Ser Thr Ile

103 1 5 10 15

104 Ala Thr Glu Val Ser Glu Ala Glu Cys Gly Thr Gln Ser Ala Thr Thr

105 20 25 30

106 Gln Gly Glu Asn Asp Trp Asp Trp Cys Cys Glu Leu Cys Cys Asn Pro

107 35 40 45

108 Ala Cys Phe Gly Cys

109 50

111 <210> SEQ ID NO: 8

112 <211> LENGTH: 16

113 <212> TYPE: PRT

114 <213> ORGANISM: Yersinia kristensenii

116 <400> SEQUENCE: 8

117 Ser Asp Trp Cys Cys Glu Val Cys Cys Asn Pro Ala Cys Ala Gly Cys

118 1 5 10 15

120 <210> SEQ ID NO: 9

121 <211> LENGTH: 17

122 <212> TYPE: PRT

123 <213> ORGANISM: Vibrio cholerae

125 <400> SEQUENCE: 9

126 Ile Asp Cys Cys Glu Ile Cys Cys Asn Pro Ala Cys Phe Gly Cys Leu

127 1 5 10 15

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128 Asn
131 <210> SEQ ID NO: 10
132 <211> LENGTH: 17
133 <212> TYPE: PRT
134 <213> ORGANISM: Vibrio mimicus
136 <400> SEQUENCE: 10
137 Ile Asp Cys Cys Glu Ile Cys Cys Asn Pro Ala Cys Phe Gly Cys Leu
138 1 5 10 15
139 Asn
142 <210> SEQ ID NO: 11
143 <211> LENGTH: 18
144 <212> TYPE: PRT
145 <213> ORGANISM: Escherichia coli
147 <400> SEQUENCE: 11
148 Asn Thr Phe Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala Pro
149 1 5 10 15
150 Cys Tyr
153 <210> SEQ ID NO: 12
154 <211> LENGTH: 13
155 <212> TYPE: PRT
156 <213> ORGANISM: Vibrio cholerae
158 <400> SEQUENCE: 12
159 Ile Asp Cys Cys Glu Ile Cys Cys Asn Pro Ala Cys Phe
160 1 5 10
162 <210> SEQ ID NO: 13
163 <211> LENGTH: 14
164 <212> TYPE: PRT
165 <213> ORGANISM: Vibrio cholerae
167 <400> SEQUENCE: 13
168 Ile Asp Cys Cys Glu Ile Cys Cys Asn Pro Ala Cys Phe Gly
169 1 5 10
171 <210> SEQ ID NO: 14
172 <211> LENGTH: 17
173 <212> TYPE: PRT
174 <213> ORGANISM: Vibrio mimicus
176 <400> SEQUENCE: 14
177 Ile Asp Cys Cys Glu Ile Cys Cys Asn Pro Ala Cys Phe Gly Cys Leu
178 1 5 10 15
179 Asn
182 <210> SEQ ID NO: 15
183 <211> LENGTH: 17
184 <212> TYPE: PRT
185 <213> ORGANISM: Vibrio mimicus
187 <400> SEQUENCE: 15
188 Ile Asp Arg Cys Glu Ile Cys Cys Asn Pro Ala Cys Phe Gly Cys Leu
189 1 5 10 15
190 Asn
193 <210> SEQ ID NO: 16
194 <211> LENGTH: 16

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195 <212> TYPE: PRT
196 <213> ORGANISM: Yersinia enterocolitica
198 <400> SEQUENCE: 16
199 Asp Trp Asp Cys Cys Asp Val Cys Cys Asn Pro Ala Cys Ala Gly Cys
200 1 5 10 15
202 <210> SEQ ID NO: 17
203 <211> LENGTH: 16
204 <212> TYPE: PRT
205 <213> ORGANISM: Yersinia enterocolitica
207 <400> SEQUENCE: 17
208 Asp Trp Asp Cys Cys Asp Val Cys Cys Asn Pro Ala Cys Ala Gly Cys
209 1 5 10 15
211 <210> SEQ ID NO: 18
212 <211> LENGTH: 17
213 <212> TYPE: PRT
214 <213> ORGANISM: Yersinia enterocolitica
216 <400> SEQUENCE: 18
217 Asn Asp Asp Trp Cys Cys Glu Val Cys Cys Asn Pro Ala Cys Ala Gly
218 1 5 10 15
219 Cys
222 <210> SEQ ID NO: 19
223 <211> LENGTH: 16
224 <212> TYPE: PRT
225 <213> ORGANISM: Yersinia enterocolitica
227 <400> SEQUENCE: 19
228 Trp Asp Trp Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Phe Gly Cys
229 1 5 10 15
231 <210> SEQ ID NO: 20
232 <211> LENGTH: 72
233 <212> TYPE: PRT
234 <213> ORGANISM: Escherichia coli
236 <400> SEQUENCE: 20
237 Met Lys Lys Leu Met Leu Ala Ile Phe Ile Ser Val Leu Ser Phe Pro
238 1 5 10 15
239 Ser Phe Ser Gln Ser Thr Glu Ser Leu Asp Ser Ser Lys Glu Lys Ile
240 20 25 30
241 Thr Leu Glu Thr Lys Lys Cys Asp Val Val Lys Asn Asn Ser Glu Lys
242 35 40 45
243 Lys Ser Glu Asn Met Asn Asn Thr Phe Tyr Cys Cys Glu Leu Cys Cys
244 50 55 60
245 Asn Pro Ala Cys Ala Gly Cys Tyr
246 65 70
248 <210> SEQ ID NO: 21
249 <211> LENGTH: 72
250 <212> TYPE: PRT
251 <213> ORGANISM: Escherichia coli
253 <400> SEQUENCE: 21
254 Met Lys Lys Ser Ile Leu Phe Ile Phe Leu Ser Val Leu Ser Phe Ser
255 1 5 10 15

```

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```

256 Pro Phe Ala Gln Asp Ala Lys Pro Val Glu Ser Ser Lys Glu Lys Ile
257          20          25          30
258 Thr Leu Glu Ser Lys Lys Cys Asn Ile Ala Lys Lys Ser Asn Lys Ser
259          35          40          45
260 Gly Pro Glu Ser Met Asn Ser Ser Asn Tyr Cys Cys Glu Leu Cys Cys
261          50          55          60
262 Asn Pro Ala Cys Thr Gly Cys Tyr
263 65          70
265 <210> SEQ ID NO: 22
266 <211> LENGTH: 71
267 <212> TYPE: PRT
268 <213> ORGANISM: Yersinia enterocolitica
270 <400> SEQUENCE: 22
271 Met Lys Lys Ile Val Phe Val Leu Val Leu Met Leu Ser Ser Phe Gly
272 1          5          10          15
273 Ala Phe Gly Gln Glu Thr Val Ser Gly Gln Phe Ser Asp Ala Leu Ser
274          20          25          30
275 Thr Pro Ile Thr Ala Glu Val Tyr Lys Gln Ala Cys Asp Pro Pro Leu
276          35          40          45
277 Pro Pro Ala Glu Val Ser Ser Asp Trp Asp Cys Cys Asp Val Cys Cys
278          50          55          60
279 Asn Pro Ala Cys Ala Gly Cys
280 65          70
282 <210> SEQ ID NO: 23
283 <211> LENGTH: 54
284 <212> TYPE: PRT
285 <213> ORGANISM: Artificial Sequence
287 <220> FEATURE:
288 <223> OTHER INFORMATION: Synthetically generated amino terminal leader
289 sequence
291 <400> SEQUENCE: 23
292 Met Lys Lys Ser Ile Leu Phe Ile Phe Leu Ser Val Leu Ser Phe Ser
293 1          5          10          15
294 Pro Phe Ala Gln Asp Ala Lys Pro Val Glu Ser Ser Lys Glu Lys Ile
295          20          25          30
296 Thr Leu Glu Ser Lys Lys Cys Asn Ile Ala Lys Lys Ser Asn Lys Ser
297          35          40          45
298 Gly Pro Glu Ser Met Asn
299          50
301 <210> SEQ ID NO: 24
302 <211> LENGTH: 53
303 <212> TYPE: PRT
304 <213> ORGANISM: Artificial Sequence
306 <220> FEATURE:
307 <223> OTHER INFORMATION: Synthetically generated peptide
309 <400> SEQUENCE: 24
310 Met Lys Lys Ser Ile Leu Phe Ile Phe Leu Ser Val Leu Ser Phe Ser
311 1          5          10          15
312 Pro Phe Ala Gln Asp Ala Lys Pro Ala Gly Ser Ser Lys Glu Lys Ile

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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 08/26/2004
PATENT APPLICATION: US/10/766,735 TIME: 12:13:56

Input Set : A:\14184-039001.txt
Output Set: N:\CRF4\08262004\J766735.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:66; Xaa Pos. 1,2,3,4,5,9,20,21

Seq#:119; Xaa Pos. 1,2,3,4,5,8,9,12,13,14,16,17,19,20,21

Seq#:120; Xaa Pos. 1,2,3,4,5,8,9,16,19,20,21

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/766,735

DATE: 08/26/2004

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Input Set : A:\14184-039001.txt

Output Set: N:\CRF4\08262004\J766735.raw

L:854 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:861 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:66
L:868 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:66
L:874 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:66
L:878 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:66
L:879 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:0
L:881 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:16
L:1568 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1573 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:119
L:1574 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:119 after pos.:0
L:1576 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:119 after pos.:16
L:1587 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1593 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:120
L:1597 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:120
L:1601 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:120
L:1605 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:120
L:1609 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:120
L:1613 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:120
L:1614 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:120 after pos.:0
L:1616 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:120 after pos.:16